SO WHAT?
TURNING DATA INTO INFORMATION

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Pivotal Moment Consulting
EXERCISE

- Create an outcomes dashboard that is designed to drive quality improvement

- 3 metrics
  - DM2 A1C control
  - HTN control
  - Immunization rate
How does this engage leadership?

How does this engage frontline staff?

Does it work in your current culture?

Is it actionable?
  Would someone know what to do by looking at it?
GOALS

✓ EMR

✓ Data

✓ Dashboard

SO WHAT?!
DATA VS. INFORMATION

PARIS IN THE SPRING

POP GOES THE WEASEL
DATA RICH BUT INFORMATION POOR

- Having an EMR and collecting data does not translate into action

- EMRs
  - Thousands of data points

  - Visually aggregates the data points on EMR screens

  - Providers and teams mentally evaluate the data to convert it into information that drives patient care
THE GOAL OF A DATA DRIVEN CULTURE

THE SAME THING  --- MAKE A DIFFERENCE IN PATIENT LIVES

So why do I need data?

Why do I need information?
## DATA DRIVEN OUTREACH

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week #1</strong></td>
<td>Prenatal&lt;br&gt;Chronic Pain&lt;br&gt;Fap Mgmt&lt;br&gt;CM D</td>
<td>CM Dep&lt;br&gt;SHP Dep&lt;br&gt;Blue PR Dep</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Week #2</strong></td>
<td>ADHD&lt;br&gt;Diabetes&lt;br&gt;Diabetes(mal)</td>
<td>CM Dep&lt;br&gt;SHP Dep&lt;br&gt;Green PR Dep</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Week #3</strong></td>
<td>Prenatal&lt;br&gt;Miscarriage&lt;br&gt;Missing Fap</td>
<td>CM Dep&lt;br&gt;SHP Dep&lt;br&gt;Red PR Dep</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Week #4</strong></td>
<td>Coumadin&lt;br&gt;Diabetes (male)</td>
<td>CM Dep&lt;br&gt;SHP Dep&lt;br&gt;Orange PR Dep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Diabetes Planned Care Ruler

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>DOB</th>
<th>Visit</th>
<th>BP Syst</th>
<th>BP Dia</th>
<th>Tobacco</th>
<th>Eye Exam</th>
<th>SM Goal</th>
<th>Foot Exam</th>
<th>LDL Date</th>
<th>LDL</th>
<th>A1c Date</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonnie</td>
<td></td>
<td>1/1952</td>
<td></td>
<td>122</td>
<td>80</td>
<td>Current</td>
<td>08/01/2007</td>
<td>11/13/08</td>
<td>05/15/2008</td>
<td>04/03/2008</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Group Visit**: No
- **Value**: 7.80


- **Group Visit**: Yes
- **Value**: 8.00

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**Data Driven Registry**

- **High Risk**
- **Last Name**: Bonnie
- **DOB**: 1/1952
- **Visit**: 11/13/2008
- **BP Syst**: 122
- **BP Dia**: 80
- **Tobacco**: Current
- **Eye Exam**: 08/01/2007
- **SM Goal**: 11/13/08
- **Foot Exam**: 05/15/2008
- **LDL Date**: 04/03/2008
- **Value**: 7.80

- **High Risk**
- **Last Name**: Angelica
- **DOB**: 1/1975
- **Visit**: 03/26/2009
- **BP Syst**: 115
- **BP Dia**: 69
- **Tobacco**: Never
- **Eye Exam**: 12/11/08
- **SM Goal**: 03/26/2009
- **Foot Exam**: 02/15/2008
- **Value**: 8.00
TRANSFORMING DATA INTO INFORMATION
WAREHOUSING

- EMR Database
- Staging Database
- BI Database

DATA → Data Cleanup → Manipulation → INFORMATION
START WITH THE BIG PICTURE

Asthma Goal: 91% [Green] Current: 91.24%

Hyperension Goal: 75% [Green] Current: 76.90%

Immunization Goal: 89% [Yellow] Current: 88.91%

Cervical Cancer Screening Goal: 88% [Red] Current: 76.60%

Diabetes Goal: 84% [Red] Current: 75.29%

Tobacco Screening Goal: 95% [Yellow] Current: 90.22%

Childhood Weight Mgmt Goal: 55% [Green] Current: 55.35%

Adult Weight Mgmt Goal: 53% [Green] Current: 53.51%
# Planned Care Registry Outreach

**REPORT SPECIFICATIONS**

**SHOWING PATIENTS WITH DIABETES ALERT(S)**

<table>
<thead>
<tr>
<th>Patient Care Details</th>
<th>Visits and Appointments</th>
<th>Outreach Details</th>
<th>Patient Care Alerts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Patients:</strong> 55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person Nbr</th>
<th>Patient Details</th>
<th>Visits and Appointments</th>
<th>Outreach Details</th>
<th>Patient Care Alerts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dryden, Kevin</td>
<td>PCP: Dryden, Kevin</td>
<td>Last Visit: 11/18/2015, K-D/A</td>
<td>Date Reviewed: 12/17/2015</td>
<td><strong>Clinical</strong></td>
</tr>
<tr>
<td>842791</td>
<td>PDP: Missing PDP Hygienist</td>
<td>Last WCC:</td>
<td>Comments: LRm informing pt to RCTC and schedule appt for DM, IH</td>
<td>Past Due - Diabetes Eye Exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Payer: Medicaid FQHC</td>
<td>Call Attempt: 2nd Call</td>
<td>Past Due - Diabetes Foot Exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Next appt:</td>
<td>Call Status: Left message</td>
<td>Past Due - High Blood Pressure &gt; = 140/90 (Diabetes, )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Last Dental Visit:</td>
<td></td>
<td>Past Due - Last A1c &gt; 9 on 11/18/2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Next Dental Visit:</td>
<td></td>
<td>Past Due - LDL (Cholesterol) Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Past Due - Tdap/ TD Vaccine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ACO Care Team Score is 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Dental</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Are you interested in dental health?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Close the Loop

## Patient Information

<table>
<thead>
<tr>
<th>Person Nbr</th>
<th>Patient Name</th>
<th>PCP Status</th>
<th>Phone Number</th>
<th>Age/DOB</th>
<th>Gender</th>
<th>Last Visit</th>
<th>ACO</th>
</tr>
</thead>
<tbody>
<tr>
<td>842791</td>
<td></td>
<td>PCP, Dyrene, Kevin, Status: Active</td>
<td></td>
<td>49 Years</td>
<td>M</td>
<td>11/16/2010 Dyrene, K</td>
<td>X</td>
</tr>
</tbody>
</table>

## Alerts

- **Past Due - Diabetes Eye Exam**
- **Past Due - Diabetes Foot Exam**
- **Past Due - LDL (Cholesterol) Lab**
- **Past Due - Last A1c > 9 on 11/16/2015**
- **Past Due - High Blood Pressure > 140/90 (Diabetes,)**
- **Past Due - Immunizations (Past Due - Hepatitis B Vaccine,)**

**ACO Care Team Score is 3**

## Active Problem List

- 11/18/2015 - Alcohol-induced chronic pancreatitis
- 11/19/2015 - Cessation of chronic alcoholism
- 09/17/2014 - Alcoholism - 305.90
- 09/17/2014 - Iron deficiency anemia - 280.9
- 09/17/2014 - Methamphetamine abuse - 305.70
- 09/17/2014 - Pancreatitis - 577.0
- 09/17/2012 - Diabetes type 2, uncontrolled - 250.02

## Active Medications

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Stop Date</th>
<th>Prescribed Elsewhere</th>
<th>Brand Name</th>
<th>Generic Name</th>
<th>Dose</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/02/2016</td>
<td>12/02/2016</td>
<td></td>
<td>DURE COMFORT</td>
<td>PEN NEEDLE, DIABETIC</td>
<td>20 gauge X 5/16&quot;</td>
<td>Inject 10 U of Levemir SQ HS</td>
</tr>
<tr>
<td>12/02/2016</td>
<td>12/02/2016</td>
<td></td>
<td>TRUETRACK TEST STRIP</td>
<td>BLOOD SUGAR DIAGNOSTIC</td>
<td></td>
<td>Use 1 Drop by in vivo route 1 - 3 times everyday as needed to monitor blood glucose</td>
</tr>
<tr>
<td>12/02/2016</td>
<td>12/02/2016</td>
<td></td>
<td>THIN LANCETS</td>
<td>LH GEST</td>
<td></td>
<td>inject by Subcutaneous route 1 - 2 times every day for testing blood sugar</td>
</tr>
<tr>
<td>12/02/2016</td>
<td>12/02/2016</td>
<td></td>
<td>WAVESENSE PRESTO</td>
<td>BLOOD-GLUCOSE METER</td>
<td>100 units L 2 ml</td>
<td>inject 10 Units by subcutaneous route every morning</td>
</tr>
<tr>
<td>11/10/2016</td>
<td>11/19/2016</td>
<td></td>
<td>LEVEMIR FLIXOJECT</td>
<td>INSULIN DETEMIR</td>
<td>5 mg</td>
<td>inject 1 tablet by oral route every day</td>
</tr>
<tr>
<td>11/10/2016</td>
<td>11/19/2016</td>
<td></td>
<td>LINSOPRIL</td>
<td>INSULIN ASPART</td>
<td>100 units L</td>
<td>inject by subcutaneous route per prescriber's instructions. Insulin dosing requires individualization. Use 1 by Topical route every day for glucose monitoring</td>
</tr>
<tr>
<td>11/18/2016</td>
<td>11/19/2016</td>
<td></td>
<td>NOVOLGIDE FLODEX</td>
<td>BLOOD-GLUCOSE SYSTEM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Diabetes - High Risk

<table>
<thead>
<tr>
<th>Systolic</th>
<th>Diastolic</th>
<th>Eye Exam</th>
<th>Foot Exam</th>
<th>A1c (Last 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>50</td>
<td>11/16/2015 - 11.5</td>
<td>03/10/2016 - 14.2</td>
<td>08/14/2014 - 14.5</td>
</tr>
</tbody>
</table>

## Group Not No

## Open Refferrals

<table>
<thead>
<tr>
<th>Future Labs</th>
<th>Diagnostics</th>
</tr>
</thead>
</table>
WHAT ARE YOU THINKING RIGHT NOW?

- What are your barriers / challenges?
- What would help?
- What can you take away?
- What do you want to apply?
WHAT DOES IT TAKE?

NOT A BETTER EMR!

NOT IT STAFF!

- SQL developers / Analysts
- Executive buy-in
- Clinical leadership
- Prioritization of where to start
- Accountability
- Iteration
QUESTIONS?

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